PRACTICE OBSERVED

Practice Research

Detection of patients with high alcohol intake by general practitioners

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Abstract

General practitioners have the potential to treat patients with alcohol problems effectively. Despite the medical implications of excessive alcohol intake, it appears that general practitioners are not sufficiently aware of the drinking habits of their patients. The aim of the study was to investigate the accuracy of 56 randomly chosen general practitioners in detecting which of their patients had a high alcohol intake. Altogether, 2081 patients were recruited in general practitioners' waiting rooms, where they answered questions about their drinking habits. After the consultations general practitioners were asked to indicate the patients' levels of alcohol intake. The results showed that general practitioners correctly identified only 27·5% of patients who were classified as "high risk" drinkers, using Australian Medical Association criteria. They correctly identified only 45·2% of patients who were classified as "moderate to heavy" drinkers, defined by them as drinkers who consume four or more standard drinks a day. These findings have important implications for clinical practice since they indicate that general practitioners are failing to perform adequately in an important area of preventive medicine. This issue needs to be addressed in undergraduate and postgraduate medical education.

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The study was part of a large research project undertaken by the Newcastle Primary Care Research Group.

Introduction

A curious paradox exists concerning alcoholism and the medical profession. On the one hand, there is an insistence on the medical concept of alcoholism and the necessity to treat alcoholism as a disease like any other.[1] Alcohol abuse is a serious health problem which can lead to a well documented pattern of medical problems[2] as well as to disruption of psychological,[3] social,[4] and economic[5] functions. General practitioners seem to agree that they have a responsibility in this matter. For example, a British study of general practitioners' management of alcoholic patients showed that they believed that they had a legitimate role in working with patients with drinking problems.[6] On the other hand, general practitioners seem reluctant to diagnose, treat, or refer people with problems related to alcohol.[7]

The general practitioner is a key person to manage problems related to alcohol. As the usual doctor of first contact in the medical system, the general practitioner can act as a case finder of people with alcohol problems.[8] Excessive drinkers also seem to visit medical practitioners more often than the average patient.[9] General practitioners who espouse the concept of holistic care for patients are in a position to address the many social issues related to the drinking problem. Increasingly, the general practitioner is seen by patients as an appropriate person with whom to discuss psychosocial difficulties.[10] It may also be argued that general practitioners are in a favourable position to intervene with alcohol problems at an early stage before irreversible damage occurs[11, 12] and treatment becomes complicated, expensive, and largely ineffective.[6]

When an alcohol problem has been detected a general practitioner can offer brief counselling, which has been found to be effective.[13] During such counselling the practitioner can present evidence of physical damage, assist the patient and family in setting goals related to drinking, provide self help materials such as booklets and pamphlets, and assist with techniques for managing stress.[14] Referral for specialist treatment, for instance to psychologists, psychiatrists, alcohol and drug counsellors, and self help groups such as Alcoholics Anonymous, is also possible.

Method

Data for this study were collected as part of a large descriptive study to investigate quality of care provided by general practitioners. A random sample of 108 general practitioners was asked to participate in the study, in which a videotape of doctor-patient interactions was examined. The sample of 5253 patients was recruited in the waiting rooms of consenting general practitioners. Patients were eligible for inclusion if they were aged 18 years or more, could speak and read English, were willing to have their consultations videotaped, and were not too ill, or in too much pain, to complete questionnaires.

PROCEDURE

Patients who agreed to participate completed questionnaires while waiting to see their general practitioners. The questions relating to alcohol consumption employed a quantity frequency format. The first question "How often do you usually drink alcohol?" addressed the frequency component. The patient was asked to indicate one of six alternatives, ranging from no consumption of alcohol to daily drinking. The second question "On a day when you drink alcohol, how many drinks do you usually have?" established the quantity of alcohol that was usually consumed on a drinking day. One standard drink was defined as the equivalent of 30 ml of spirits, 60 ml of fortified wine, 120 ml of table wine, or 285 ml of beer.

Immediately after each consultation the general practitioner completed a short questionnaire that included an item about the perceived alcohol consumption of each patient. Practitioners were asked whether the patient drank lightly, moderately, or heavily, or if they were unaware of the patient's alcohol consumption. At the completion of the research all practitioners completed a further questionnaire in which they indicated their perceptions of light, moderate, and heavy alcohol consumption in standard drinks per day.

High risk drinkers among the patients were identified in two ways. The first method used the criteria set by the Australian Medical Association as indicative of alcohol consumption levels that are injurious to health—that is, 60 g of alcohol a day for men and 40 g a day for women. Such drinkers were identified by transforming the quantity frequency data derived from patients' self reports of consumption into grams of alcohol consumed per day. The general practitioners' level of accuracy in detecting these high risk drinkers was gauged by comparing patients who had been identified as such by the Australian Medical Association criteria with patients who were identified by the general practitioners as moderate to heavy drinkers.

Sensitivity and specificity values were then calculated. Sensitivity is a measure of the identification of true positives—that is, in this case the proportion of high risk drinkers as defined by the Australian Medical Association criteria, identified correctly by the general practitioners. Specificity is a measure of true negatives—that is, in this case the proportion of low to medium risk drinkers, as defined by the criteria, identified correctly by the general practitioners.

The second method for defining high risk drinkers used the alcohol consumption levels that the general practitioners perceived to reflect "moderate to heavy" drinking. They were not asked to indicate separate levels for men and women. The general practitioners' ability to detect moderate to heavy alcohol consumption in their patients, using their own criterion, was then compared, and sensitivity and specificity values were determined.

Results

From the random sample of 108 general practitioners, 56 (54%) agreed to participate in the study. Of the 5253 patients approached, 2934 (56%) met the criteria for eligibility, 497 declined to participate, and questionnaires from 356 patients were not completed, leaving a sample of 2081. Of these, data from four patients were not analysed because the sex was not identified.

After transforming the quantity frequency data obtained from the patients' self reports of alcohol consumption into grams of alcohol consumed per day 1·9% of patients fell into the high risk category using the Australian Medical Association criteria. The detection by general practitioners of this high risk group is given in their assessment of a patient as a moderate to heavy drinker. Table I summarises the results.

Ninety per cent of the general practitioners indicated at the end of the study that four or more drinks a day constituted moderate to heavy drinking. Using this "practitioner determined" criterion, 8·1% of all patients were classified as moderate to heavy drinkers. Table II summarises the detection of drinkers using this definition of high risk.

TABLE I—*General practitioners' detection of drinkers at risk, as defined by the Australian Medical Association criteria*

	Criteria	
Detection	High risk drinker (n = 40)	Low to medium risk drinker (n = 2037)
Risk detected	11	85
Risk not detected	29	1952

Sensitivity = 11/40 × 100 = 27·5%
Specificity = 1952/2037 × 100 = 95·8%

TABLE II—*General practitioners' detection of drinkers at risk, as defined by the general practitioners' criterion*

	Criterion	
Detection	Moderate to heavy drinkers (n = 168)	Light and non drinkers (n = 1913)
Risk detected	76	173
Risk not detected	92	1740

Sensitivity = 76/168 × 100 = 45·2%
Specificity = 1740/1913 × 100 = 91·0%

Discussion

The apparently low rate of participation by general practitioners in the study can be attributed to the potentially intrusive nature of the procedures, which included videotaping consultations. Preliminary analysis of the larger study, of which this was one part, indicates that participants tended to be young and were likely to be members of the Australian Medical Association and of the Royal Australian College of General Practitioners unpublished data, which raises questions of the representativeness of the sample of general practitioners.

The discrepancy between the Australian Medical Association criteria and the general practitioners' perceptions of high risk levels of drinking confirms previous findings that what general practitioners believe are limits for safe alcohol consumption are lower than the recommended standards.[7] Unfortunately, because the practitioners were not asked to indicate different consumption levels for men and women it is not known whether they perceive different risk levels for each sex.

The general practitioners identified correctly as moderate to heavy drinkers only 27·5% of patients who were classified as high risk drinkers using the Australian Medical Association criteria—a low level of accuracy for detecting high risk drinking habits. The patients with high levels of alcohol consumption are probably a relatively small proportion of the general practice population. The high specificity value of 95·8% therefore is expected. In addition, general practitioners identified only 45·2% of patients who drank at levels which the doctors considered to be moderate to heavy drinking—that is, four or more drinks a day. As argued above, the high specificity value (91·0%) is simply a function of the relatively low prevalence of high alcohol consumption among general practice patients.

The results of an associated study have shown that the rate of alcohol consumption obtained from self reports is considerably lower than the rate of consumption recorded in a diary.[15] It is likely therefore that levels of detection by general practitioners are even lower than indicated in our study. The results thus confirm earlier reports that general practitioners are not sufficiently aware of their patients' drinking habits.

One reason may be the difficulty of the diagnosis. Patients will usually present, in early stages at least, for reasons that are unrelated to alcohol use, or with diffuse physical, social, and psychological problems, for non-sickness events such as accidents, or with requests for sickness certificates.[7] Only in the later stages of alcohol abuse do patients present with symptoms that are clearly related to alcohol induced disease. Furthermore, characteristics of the doctor or of the patient may be relevant. Some doctors may have negative attitudes towards alcoholics and may be reluctant to treat them, or have stereotyped views of alcoholics as derelicts, or have a preference for medical diagnoses rather than social ones.[7] Patients may deny a heavy consumption of alcohol because of the shame and guilt attached to alcohol problems, and women and patients from high socioeconomic groups, who do not conform to the doctor's stereotypes of an alcoholic, may be less likely to have a high alcohol consumption detected.

General practitioners fail to detect most of their patients who have high levels of alcohol consumption. Given the possible benefits of early intervention[13] and the potential efficacy of the intervention of general practitioners with such patients,[7] this is unfortunate. The reasons for the low level of detection need to be examined and the subject dealt with in undergraduate and postgraduate medical education. Emphasis must be given to the responsibility of general practitioners in detecting, treating, and referring patients with alcohol problems.

References

1. Murphy HBM. Hidden barriers to the diagnosis and treatment of alcoholism and other alcohol misuse. *J Stud Alcohol* 1980;41:417-28.
2. Moser J. Prevention of alcohol related problems. *In: WHO. An international review of preventive measures, policies and programmes*. Toronto, Canada: World Health Organization, 1980.
3. Turner TB, Mezey E, Kimball AW. Measurement of alcohol-related effects in man: chronic effects as referred to levels of alcohol consumption. Part A. *Johns Hopkins Medical Journal* 1977;141:239-48.
4. Skinner HA, Holt S, Israel Y. Early identification of alcohol abuse. I. Criterial issues and psychosocial indicators for a composite index. *Can Med Assoc J* 1981;126:1141-52.
5. Smith R. Alcohol and work: a promising approach. *Br Med J* 1981;283:1108-10.
6. Anderson P. Managing alcohol problems in general practice. *Br Med J* 1985;290:1873-5.
7. Wilkins RH. *The hidden alcoholic in general practice*. London: Elek Science, 1974.
8. Blaine HT, Overton WF, Chaiken ME. Social factors in the diagnosis of alcoholism. *Quarterly Journal of Studies of Alcohol* 1963;24:640-63.
9. Buchan IC, Buchler EG, Deacon GLS, Irvine R, Ryan MP. Problem drinkers and their problems. *J R Coll Gen Pract* 1981;31:151-3.
10. Zola IK. Medicine as an institution of social control. *Sociological Review* 1972;20:487-504.
11. Cohen S. The diagnosis of dysfunctional drinking. *Arch Intern Med* 1982;142:2081-2.
12. Ogborne AC. Patient characteristics as predictors of treatment outcomes for alcohol and drug abusers. In: Israel Y, Glaser FB, Kalant H, Popham RE, Smart RG, eds. *Research advances in alcohol and drug problems*. Vol 6. New York: Plenum Publishers, 1974.
13. Chick J, Lloyd G, Crombie E. Counselling problem drinkers in medical wards: a controlled study. *Br Med J* 1985;290:965-7.
14. Skinner HA, Holt S. Early intervention for alcohol problems. *J R Coll Gen Pract* 1983;33:787-91.
15. Edwards G, Hawker A, Hensman C, Peto J, Williamson V. Alcoholics known or unknown to agencies: epidemiological studies at a London suburb. *Br J Psychiatry* 1971;123:169-83.
16. Reynolds I. Alcoholism and drug dependence—a survey of general practitioners' opinions. *Med J Aust* 1975;1:167-9.
17. Barrison IG, Viola L, Murrin-Lyon IM. Do housemen take an adequate drinking history? *Br Med J* 1980;281:1040.
18. Vande Creek L, Zachreh RL, Scherger WE. The use of standardised alcoholism screening tests in family practice. *Family Practice Research Journal* 1982;2:11-7.
19. Selzer ML. The Michigan alcoholism screening test: The quest for a new diagnostic instrument. *Am J Psychiatry* 1971;127:1653-8.
20. Hoeck DF, Sheron KM, Harding PN, Zaner RE. Use of the self administered Michigan alcoholism screening test as a family practice center. *J Fam Pract* 1983;17:1021-6.
21. Wallace P, Cremona A, Anderson P. Safe limits of drinking: general practitioners' views. *Br Med J* 1985;290:1875-8.
22. Redman S, Sanson-Fisher RW, Wilkinson C, Fahey P. The agreement between two measures of alcohol consumption. *J Stud Alcohol*: in press.
23. Edwards G, Orford J, Egert S, *et al*. Alcoholism: a controlled trial of "treatment" and "advice". *J Stud Alcohol* 1977;38:1004-31.

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Obviously, a general practitioner needs to be aware that a problem exists before deciding whether or not to intervene with a patient with alcohol problems. Studies have found, however, uniformly low levels of detection among general practitioners. For example, in one study it was estimated that roughly one tenth of alcoholics among general practice patients are recognised as such by their doctors.[16]

Studies that have investigated general practitioners' knowledge of patients with drinking problems have generally relied on medical records[7] or on the practitioners' recall of the numbers of alcoholics in their practices.[16, 17] Such methods are notoriously unreliable owing to the inadequacy of medical records[18] and faulty memory.[19] A more recent attempt to gauge the accuracy of doctors in detecting patients with alcohol problems entailed a direct comparison of general practitioners' judgments about alcoholic patients with those identified as "probably alcoholic" by the Michigan Alcoholism Screening Test.[20] This study, however, has been criticised because of the tendency of the test, when used with general practice populations, to classify patients incorrectly as alcoholic.[21]

Difficulties in identifying alcoholics for research studies can be traced to problems of definition. Thus in this study it was decided to focus on the quantity of alcohol consumed by patients, assuming that excessive consumption indicates a risk to physical health. The aim of the study was to ascertain the degree to which general practitioners detect patients who consume alcohol excessively.

Essays on Practice

Quality in general practice: case for the consumer

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In the British system of general practice patients are free to choose between equal general practitioners who act with minimum regulations and with clinical and organisational freedom. In common with other professions they are able to determine the nature and extent of their work, establish the content and requirements of training, and organise the delivery of primary care.

Since the GP's Charter in 1965 general practice has had over 20 years of ideal conditions in which to flourish: a monopoly position, a largely open ended budget, and independence to offer services. What has evolved, however, is a patchy, unintegrated, arbitrary, and often ineffective system of care, where financial incentive often loosely determines what is offered. This system has done little to narrow the division between morbidity and social class and in general provides the worst services in the areas of greatest need. Contraception, maternity care, developmental assessment, immunisation, and preventive medicine—the cornerstones of primary care—are provided at the option of the general practitioner, and much of general practice remains isolated and uncoordinated with other aspects of primary care.

It has become generally accepted that change must take place. Yet

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despite being one of the most widely used consumer services in the United Kingdom, with a budget of roughly £3 billion a year, the consumer viewpoint has been largely ignored.

Consumer choice and the independent contractor status

In the classical model of British general practice the consumers have freedom of choice. Doctors who provide good services attract patients and thus income from doctors who do not. In many countries there is direct competition not only among general practitioners but also with hospital specialists. In Britain, however, two things operate against consumer choice.

For many patients choice is limited by geographical constraints. In many areas it is difficult to register with a doctor, and doctors are often reluctant to accept patients who are registered with colleagues in the same district. A recent survey by the Royal College of General Practitioners highlighted these difficulties and also reported that there was discrimination against groups such as elderly people and people who are chronically ill. Furthermore, many community health councils have confirmed the problems that confront patients who want to change their doctor. The lack of information about the services and facilities offered by a practice also operates against consumer choice, though pressures from outside general practice are forcing changes in the restrictive and insular traditions of the profession. Thus, although the argument of consumer selection may be sound, in practice there is little direct competition between doctors, and they will not automatically lose patients if they provide a poor standard of care.

The unique independent contractor status, which provides security of employment and freedom to develop services, is said to form the basis of the special relationship between the general practitioner and the patient, ensuring accountability between both. This, however, requires that the patient understands the nature of his or her contract with the doctor, which in practice does not exist, and a commitment by the doctor to provide personal care, which is often lacking.

Closely allied to the principle of the independent contractor is the concept of clinical freedom, implying that the practitioner is in a unique position to know what is best for patients and can deliver care accordingly. Studies on both the content and the quality of care, however, have shown disturbing inconsistencies in this thesis. Elliott found that only a quarter of 45 practices in the Borough of Islington provided an efficient and comprehensive service, and 13% of practices had no staff.[1] In Tower Hamlets a quarter of general practitioners had inadequate surgery facilities, 42% of practices had no staff, nearly two thirds of doctors had no ophthalmoscope, just over half had a vaginal speculum, and one doctor had no sphygmomanometer.[2]

A report from the Royal College of General Practitioners on a survey of the care of common conditions highlighted "gaps in clinical knowledge" and reported that some general practitioners provided answers that "suggested defective knowledge."[3] In the treatment of hypertension, for instance, lack of follow up has been reported,[4] and the underdiagnosis and undertreatment of asthma in children have been confirmed in several studies.[5]

Perhaps the most relevant and unequivocal area of assessment is direct consumer review. In a study of terminal care in Sheffield Wilkes found that 37% of relatives were critical of general practitioners and 16% resentful because visits were so grudging or rare.[6] In a review of a highly selected group of general practitioners Hull and Hull found that more than half of young women said that they had difficulty in communicating their problems to their doctor, and the authors felt that this was a "disquieting and major criticism of general practice."[7]

Furthermore, general practice has changed from a disease oriented discipline to one that takes in other aspects of care, including social and psychological, in which ancillary health care workers are concerned. General practitioners are becoming part of a team and not practising in isolation, although many find this difficult to accept.

Duality of care

Clearly, a dual system of care has evolved within the National Health Service. On the one hand, standards of care are high and generally progressive. On the other, a restricted range of services and clinical standards is offered, mainly in areas where need is greatest.

Most practitioners do not accept this thesis, although the Royal College of General Practitioners accepts the need for change and has proposed a doctor oriented package of training, self assessment, and financial incentive. The college also emphasises that change should come from within the profession and be gradual, though this runs contrary to experience. All appreciable change in general practice has arisen from external pressure, and the recent introduction of the limited list confirms that change can be swift and successful. It does not augur well for the scope and speed of voluntary progress to know that the only universal achievement of the profession is that shortly trainers' notes will be arranged chronologically and include a summary of treatment.

More recently the government has offered an "agenda for discussion," the cornerstone of which is financial incentive for good care.[8] It is a sad reflection on our profession and an indictment of our present status that financial pressure is a prerequisite for change.

Conclusion

In every profession there is a difficult balance between the rights of the consumer and the interests of its members. In general practice a dual system of care has evolved which is unacceptable in a national health system. Though the need for change may be accepted, appreciable change will not emerge from 30 000 independent contractors. Most proposals to date offer financial incentive to improve practice, but this approach is typically doctor centred and ignores the more urgent needs of the consumer.

A consideration of other structures is beyond the scope of this paper, but perhaps a more realistic and accountable system would be a "semi independent contractor" status within an integrated primary health care system. The framework in which the doctor worked would be laid down by the family practitioner committee, working closely with the district health authority. The contract, possibly renewable, would include minimum standards of practice and premises and specify the services to be offered, which may vary with local conditions.

This framework would be a compromise between the unrealistic expectations of the present profession and the unacceptable status of a salaried employee and ensure a more accountable and uniform level of practice without detriment to the areas where standards are already high.

References

1. Elliott A. General practice facilitation—a personal view. *Health Trends* 1984;4:74.
2. Hench MCD, Sams PA. The general practitioner in the inner city: a survey of a London health district. *J R Coll Gen Pract* 1984;34:199-204.
3. Royal College of General Practitioners. *Clinical knowledge and education for general practice*. London: RCGP, 1984. (Occasional paper 27.)
4. Heller RF, Rose G. Current management of hypertension in general practice. *Br Med J* 1977;2:1442-4.
5. Ritchie LD, Currie AM. Blood pressure recording by general practitioners in north east Scotland. *Br Med J* 1983;286:107.
6. Katz KH, Hunter AP. Detection and management of hypertension in general practice in north west London. *Br Med J* 1984;288:903-6.
7. Lee DA, Wanklyn NB, Speight ANP, Hey EN. Prevalence and spectrum of asthma in childhood. *Br Med J* 1983;286:1256-8.
8. Speight ANP, Lee DA, Hey EN. Underdiagnosis and undertreatment of asthma in childhood. *Br Med J* 1983;286:1253-5.
9. Levy M, Bell L. General practice audit of asthma in childhood. *Br Med J* 1984;289:1115-8.
10. Walker L. Dying now. *Lancet* 1984;i:950-2.
11. Hull FM, Hull FS. Time and the general practitioner: the patient's view. *J R Coll Gen Pract* 1984;34:71-5.
12. Secretary of State for Government Services, Wales, Northern Ireland and Scotland. *Primary health care: an agenda for discussion*. London: HMSO, 1986. (Cmnd 9771.)

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